

METHOD OF MEASURING NON-LINEARITY IN MAGNETIC  
RECORDING/REPRODUCTION, DEVICE FOR MAGNETIC  
RECORDING/REPRODUCTION AND LSI FOR MAGNETIC  
RECORDING/REPRODUCTION

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ABSTRACT OF THE DISCLOSURE

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Method of accurately measuring various kinds of non-linear transition shifts (NLTSS) in the magnetic recording/reproduction using an MR-type reproducing head is provided.

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According to the method, the data of a reference bit-string pattern are sent, as reference signals, to a magnetic disk 2 via a head IC 5 and a magnetic head 3 so as to be magnetically recorded. A first predetermined harmonic component  $V_{nref}$  is measured from the reproduced signals of the record data detected by the magnetic head 3, a bit-string pattern is selected from plural kinds of predetermined bit-string patterns, the data of the selected bit-string pattern are sent, as to-be-measured signals, to the magnetic disk 2, a second predetermined harmonic component  $V_{npat}$  is measured from the reproduced signals, and the NLTS is calculated from  $V_{nref}$  and  $V_{npat}$ .

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